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BY ELECTRONIC FILING

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

RE: Ex Parte Written Presentation
WT Dkt. No. 06-150, "700 MHz Service Rules"

Dear Ms. Dortch:

Verizon Wireless is submitting to the record for the above-referenced docket the enclosed paper by noted wireless industry analyst Mark Lowenstein, "Comparisons Between U.S. and European Markets for Wireless Services and Devices: Myth vs. Reality."

In this paper, Mr. Lowenstein dispels various claims that the European wireless market is more "open" than the U.S. market for wireless handsets, applications and innovation. Claims that imposing open access on the U.S. market will benefit consumers by somehow replicating the "open" European market are simply wrong because the underlying premise –that the European wireless market is in fact "open" and that its wireless consumers are better off – is a mirage. Specifically, Mr. Lowenstein explains:

- *Handset Portability.* The more prevalent handset portability in Europe arises not from an effort to make the market more "open," but rather from governmental technology choice and economic factors. All European carriers use GSM technology, which features removable SIM cards, by government mandate. Also, post-pay service is much more prevalent in the United States than in Europe, with more sales of subsidized phones in conjunction with service contracts. And, European roaming rates from country to country are so high that it makes more sense for a consumer to purchase a SIM card from a domestic provider for each country visited. The tighter handset-network integration in the United States

results in benefits to consumers from greater emphasis on optimizing voice quality, security and anti-theft measures.

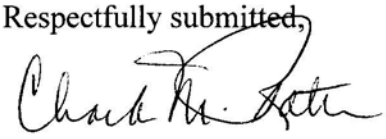
- *Handset Innovation.* The U.S. wireless handset market is far more innovative than the European market. European consumers are locked into devices and services based almost only on GSM, so the greater number of GSM devices in Europe does not tell the whole story. The United States' decision not to impose a single standard has led to a market where consumers have a choice of phones based on GSM, CDMA, iDEN, and other technologies. That decision also enabled a U.S. originated technology, CDMA, which is used in every advanced 3G handset in the market today. The U.S. market also leads Europe in innovation of the usability of devices.
- *Handset Locking/Unlocking.* Wireless carriers in Europe do not universally "unlock" handsets purchased from the carrier. Just as in the United States, handset locking policies vary from carrier to carrier, and on whether service is provided on a pre-pay or post-pay basis, or whether the customer is in a contract. Moreover, unlocked phones are available from non-carrier sources both in Europe and in the United States.
- *Advanced Networks.* The U.S. wireless market is leading Europe in the build out of advanced 3G networks and advanced mobile TV networks. The United States leads the world in the mobile e-mail market and advanced services such as mobile games, mobile search, downloadable music, video clips and location services. Content is available through U.S. carriers, but increasingly from off-portal sites, whereas the trend in Europe is to less off-portal content.
- *Costs to Consumers.* Consumers in the United States generally pay one-half less per voice minute and one-third less per data minute than their European counterparts, and as a result use up to five times more minutes per month.

Mr. Lowenstein summarizes by stating: "[W]hile European consumers may have more choices of handsets and more portable handsets, U.S. consumers have reaped the benefits of competition among carriers and technologies, resulting in lower prices, more usage, more varied voice network choices and more robust data services."

Verizon Wireless respectfully submits that attempting to impose "open access" requirements on any segment of the 700 MHz spectrum based on what is available to consumers in Europe is factually unsupportable, legally unsustainable, and ignores the tremendous benefits that innovation in the U.S. wireless market has brought to wireless consumers. Imposing an open access regime will disrupt and undermine that innovation.

Pursuant to Section 1.1206(b) of the Commission's Rules, this letter and the enclosure are being filed on the Commission's Electronic Comment Filing System.

Respectfully submitted,



Charla Rath

Enclosure

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Comparisons Between U.S. and European Markets for Wireless Services and Devices:
Myth vs. Reality

Mark Lowenstein

July 2007

Executive Summary

Proponents of an "open access" regime for wireless networks in the United States have advanced several arguments claiming that the European wireless market is more open than the U.S. market and consequently is more competitive, more innovative and superior for consumers.[1]

While in some respects this argument might have been true historically, in just about every respect the U.S. wireless industry has caught up and now surpassed its European counterpart. The U.S. wireless market, for the most part: is more competitive; features lower prices; boasts more advanced 3G networks; has led in the development of advanced devices; has higher data revenues per subscriber, outside of SMS; and leads in the development of certain applications such as multimedia, location services, and Mobile TV. Below is an explanation of the reality behind the myth that the European wireless market is more advanced and better for consumers.

Myth #1: The European Wireless Market Is Better for Consumers Because Handsets Are Unlocked and Can be Ported from Carrier to Carrier.

As an initial point, it is simply inaccurate to state that all phones in Europe are unlocked. There are variations depending on which country, which operator, whether the customer is in a pre-paid or post-paid relationship, and where the customer is in or out of contract. Moreover, handsets are not necessarily unlocked without the customer's request. Similarly, it is not a given that all wireless phones sold in the U.S are locked. Locking is not regulated in the U.S. Operator policies vary, in many cases along the same lines as European operators:

- Verizon Wireless does not lock handsets of subscribers in contracts.
- AT&T unlocks phones after the customer's completion of the contract if the handset supplier allows AT&T to do so.
- T-Mobile generally unlocks subsidized phones 90 days after purchase upon request.

It is also important to note that it is increasingly possible to purchase unlocked phones directly from third-party retailers. CompUSA, for example, sells unlocked Motorola, Samsung, and Nokia handsets. Customers can walk into a Nokia store and purchase a phone to be used on the GSM network of their choice.

Even though a universal generalization cannot be made, a greater percentage of customers have an unlocked phone in Europe than in the U.S. And phones are, in

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[1] *See, e.g.,* Tim Wu, "Wireless Net Neutrality: Cellular *Carterfone* and Consumer Choice in Mobile Broadband," New America Foundation Working Paper #17 (Feb. 2007); *cf. Ex Parte* Letter from Richard S. Whitt, Google, Inc. to FCC Secretary Marlene H. Dortch, FCC WT Dkt. 06-150 (filed July 9, 2007).

general, more "portable" from one operator to another. But phone portability does not necessarily make the marketplace better for consumers in all respects.

First, wireless phone portability in Europe is more prevalent in large part due to differences in market structure – not because operators are more "open" or benevolent. In Europe, by government mandate, all wireless operators use GSM, which was developed with SIM card technology and allows for easier phone porting. A SIM card can be removed from and inserted into any GSM phone in Europe. Such phone portability is more limited in the U.S. because multiple technologies are available, based on the recognition by the FCC that competing technology choices benefit consumers by driving down prices and encouraging innovation. Thus, it is not possible to use a CDMA phone in a GSM network, or vice versa (with the exception of a select number of dual-mode devices).

Second, the United States has a much higher percentage of subscribers who are on post-pay plans with their operator. In these cases, the operator has generally subsidized the phone and the customer signs a one or two year contract. It would not make any economic sense for an operator to subsidize the phone, and then immediately allow full portability of that subsidized phone to another operator. In cases where customers buy unlocked phones from a third party retailer, they are paying the full retail price for the device.

A third structural reason for greater SIM portability in Europe is because of the high roaming rates there. If users just take their phone from one country to another, they pay roaming charges as high as $1.50 per minute. In order to avoid this, they take their SIM and sign up for service in the domestic country they are visiting. Clearly this is a reason to permit SIM portability but the process is rather inconvenient to consumers. In the United States, by contrast, the predominant rate plans from most of the major carriers include long distance and roaming.

However, in the U.S. market where phone portability is less prevalent, there are countervailing benefits. Operators sell phones that are optimized for use on their network. This applies not only to voice quality of service but also to anti-theft and fraud measures. Additionally, phones sold by an operator are equipped with software for creating an optimal user interface and accessing certain applications, such as VZ Navigator, Verizon Wireless' location-based service, mobile storefronts such as Verizon Wireless' Get it Now services, or AT&T's MediaNet. These are gateways into applications either optimized for the mobile device, or in some cases arising from a relationship between the operator and a content partner. This is similar to a subscriber's experience in Europe with Vodafone Live! or a community application such as TIM Café in Italy.

Finally, even in an environment where there is phone portability, there will be situations where operators offer some handsets that are exclusive, unique, or customized in a certain way (for example, Vodafone Live!). The ability to offer a differentiated handsets, user

interfaces, and content is a key point of competitive differentiation for operators that helps to drive down prices and spur innovation, to the benefit of consumers.

Myth #2: The European Handset Market Is More Innovative.

Proponents of an "open access" regime for wireless services argue that the decoupling of handsets and networks in Europe produced a market for wireless handsets that is more advanced and innovative than in the U.S. However, U.S. consumers are not disadvantaged with regard to being able to buy "the latest and greatest" wireless device.

First, European regulators mandated use of GSM. In the U.S., rather than mandate what air interface technology the operators must use, the FCC decided to allow market forces to prevail. This decision has allowed for tremendous innovation. For example, Qualcomm, a U.S. based company, developed and worked with operators to deploy CDMA technology, which in some respects is more advanced than GSM. CDMA is used by about 50% of U.S. wireless subscribers and about 20% globally. The rise of Qualcomm and the entire CDMA ecosystem has helped to assert U.S. technological leadership in the wireless sector. CDMA-based technologies are used in every 3G handset in the market today, even those in the 3GPP (GSM) track. CDMA has also given birth to dozens of new companies and employed tens of thousands of people.

Market forces also allowed the development and deployment of the iDEN technology by another U.S. based company, Motorola. The iDEN network, which was deployed by Nextel (now Sprint Nextel), offers the most advanced push-to-talk functionality in the world and is popular in certain businesses such as construction as well as state and federal government agencies.

Second, European consumers may have more choice of devices, due to the economies of scale of GSM (80% market share, globally). With more handsets, the price per handset is generally lower, and some devices might be launched outside the U.S. first since the U.S. market is only about 50% GSM subscriber share. However, U.S. consumers have access to a more diverse handset market. For example, consumers in Wal-Mart or Best Buy will find handsets using GSM, CDMA, and iDEN technologies. And, in terms of competition, device market share is more concentrated in Europe. Nokia has about a 35% market share in Europe, whereas it is about 15% here.

Network diversity has also allowed the U.S. to pioneer in the development of multi-band and multi-mode devices. Currently available are:

- "Quad-band" devices, capable of operating on U.S. and European networks at the 800/900/1800/1900 frequencies;
- Multi-mode devices, such as CDMA/GSM phones that can be used globally, as well as iDEN/GSM and iDEN/CDMA devices

Third, the U.S. has clearly kept pace in the area of handset innovation. Some leading edge devices have come out of Europe, some from Japan and South Korea, and some from the United States. In addition to greater handset diversity, as pointed out above, some of the "latest and greatest" to come out of the U.S. include:

- iPhone, made and developed by Apple in the United States and launched in this market first.
- PDA devices: Most new Blackberry, Palm, and Microsoft models are introduced here first, or are available in the U.S. exclusively. In fact, the United States has more than 50% of global Blackberry subscribers. In Europe, Nokia has dominant share of the smartphone market.
- Some of the most feature-rich 3G handsets are either only available in the U.S. or have been specially developed for the market here. Samsung, LG, and Sanyo, for example, are significant players with market leading handsets in the U.S., whereas they are smaller players in Europe. On the other hand, Nokia, which has for the most part stayed out of the CDMA business, may offer certain handsets in all-GSM Europe but not here.

The U.S. market also leads in innovation in the usability of devices. Blackberry, Treo, and iPhone devices have led the way in usability innovation. Qualcomm has developed a new user interface platform, called UI One, which is now being adopted by several carriers in Europe.

Finally, in terms of channel distribution, it is true that a higher percentage of handsets is sold through the operator channel than in Europe. But, this does not mean that U.S. consumers have insufficient choices. To the contrary, the U.S. has a vibrant third-party distribution network, with Wal-Mart, Best Buy, Circuit City, and Radio Shack playing important roles as national wireless retailers. There are countless regional chains of third-party distributors, as well as successful third-party Internet distributors such as Let's Talk and Inphonic (which went public two years ago).

Myth #3: Europe Offers More Innovative Services and Applications to Consumers.

The deployment of advanced 3G networks has enabled the U.S. to leapfrog Europe, in many respects, in offering advanced applications. Here in the U.S., we have two fully built out 3G networks (EVDO), whereas the buildout of UMTS in Europe is more uneven. Additionally, EVDO performance (uplink, downlink, and latency) has been shown to be superior to UMTS. This allows for a more robust market for PC-based connectivity, as well as multimedia applications. HSDPA is the UMTS upgrade that is more competitive in terms of performance to EVDO. HSDPA is in the process of being deployed by AT&T but is in much more limited deployment in Europe. Additionally, Verizon Wireless and Sprint Nextel are rolling out EVDO Rev. A, which offers superior downlink speeds and lower latency. This would put overall U.S. wireless data networks

definitively ahead of just about anywhere in Europe.

The U.S. also leads in the *diversity* of data networks, including:

- The most advanced, nationwide 3G networks (EVDO Rev. A, and HSDPA)
- Nationwide iDEN network
- The first national network being built for Mobile TV (MediaFLO)
- Announced plans for WiMax network builds, with more than $3 billion committed by Sprint and Clearwire.

The myth that Europe is ahead in data services is perpetuated by the pervasiveness and high usage of text messaging there. As a percentage of revenues, Europe has been ahead with SMS. But it is important to understand the reasons for this:

- *Higher voice pricing.* SMS is an attractive alternative to making a high priced voice call, which is especially important to the price-sensitive younger segment of the market.
- *Limited IM penetration.* In Europe, PC penetration has been historically lower and usage of PC-based instant messaging (IM) services has also been much less than in the U.S. Hence SMS has been an attractive alternative in the youth market.
- *Carrier interoperability.* Europe was ahead of the U.S. in implementing carrier interoperability. Once interoperability was introduced in the U.S. some four years ago, SMS usage took off. MMS interoperability has been in place for about a year in the U.S., and will also likely show increased usage.

Outside of SMS, data revenues of U.S. operators are equal to or higher than their European counterparts, and the difference in percentage of revenues from text messaging has narrowed significantly. In enterprise mobile e-mail, for example, the U.S. has over 50% of the world's mobile e-mail market (principally Blackberry). Additionally, due to the U.S. nationwide deployment of advanced 3G networks, the usage of laptops with wireless modems (wireless PC cards) to access services such as Verizon Wireless' Broadband Access is much more prevalent in the U.S. than in any other geographic area.

On the consumer side, the U.S. is exhibiting world leadership with respect to numerous advanced services, including mobile games, mobile search, downloadable music, video clips, and location services. Jamdat, a U.S. based company that is arguably the world leader in the development of mobile games, went public two years ago and was acquired by Electronic Arts for $680 million.

Because deployment of advanced 3G networks (EVDO and HSDPA) in the United States is ahead of Europe, U.S. consumers have access to a broader array of rich multimedia applications. Verizon Wireless' VCAST Video clips, and similar offerings from other U.S. carriers on 3G devices, showcase high quality short form content, often in partnership with the leading media and entertainment brands. There is increasing innovation in multimedia content made specifically for mobile, such as a version of the Fox Network's popular "24", and short films from companies such as Fun Little Movies and Atom Films.

Mobile TV has also made its debut recently in the United States. Qualcomm has invested more than $700 million to build the nationwide MediaFLO network on dedicated spectrum. Verizon Wireless has launched the service, called VCAST Mobile TV, to about half its footprint, with coverage to the majority of its footprint expected as the FCC clears the licenses. This is the most advanced Mobile TV network available in the world today in terms of picture quality and the overall user experience. Several other carriers, in the U.S. and worldwide, have announced plans to launch services based on the MediaFLO technology.

Finally, some have criticized operator control of content in the U.S., claiming that the European market is more "open." Today in the United States, there is a healthy mix of on-portal content (that is, accessed from an operator's "storefront" such as Get it Now) and off-portal content. Content and relationships with content providers represent one form of competitive differentiation in the wireless business today. For example, subscribers to Verizon Wireless' VCAST have access to premium content from ESPN, while AT&T subscribers have access to HBO content on their mobile phones. Then there are video clip services such as MyWaves, which work with just about any mobile device, as long as the subscriber has a data subscription. As a percentage of the total, the percentage of off-portal content accessed by consumers has been increasing in the past two years, while in Europe it has been decreasing.

Myth #4: The U.S. Market is Not as Competitive as the European Market.

From a consumer standpoint, the U.S. market is one of the most competitive in the world. The average U.S. consumer has a choice of some four "national" wireless carriers. There are also several strong regional operators, such as Alltel and U.S. Cellular. There are operators, such as TracFone, specializing in pre-pay services, and several nationwide MVNOs that have launched services within the past couple of years, such as AMP'D, Disney Mobile, and Helio. Hence, the average consumer has a choice of five to seven service providers in most major markets. This competitive choice is far greater than in nearly any other segment of the communications market.

The competitiveness of the market has led to voice pricing that is among the most aggressive in the world. The average carrier price per minute in the U.S. is now well below $0.07, compared to $0.22 in Europe. This has led to average monthly voice minutes of use being as much as five times higher in the U.S. than in Europe.

Data service pricing is also more aggressive here. U.S. wireless operators are now offering unlimited text messaging plans for as little as $10 per month. Services such as Broadband Access, which offers laptop users access to the Internet from cellular modems, typically cost $60 for an unlimited plan. And pricing for the recently launched iPhone features 450 voice minutes and unlimited data access for $59.99 per month. While it is difficult to make generalizations in comparing prices because in Europe they

vary significantly from one geography to another, a rule of thumb is that U.S. voice pricing is about half the average in Europe and data pricing is about one-third lower.

The high voice pricing in Europe was one of the initial catalysts for SMS — it is simply a lot cheaper to send a text message there than it is to make a voice call. The relatively high voice pricing in Europe also provides a more compelling reason for consumers to consider the alternative of handing the call over to IP, via Wi-Fi enabled phones.

In summary, while European consumers may have more choices of handsets and more portable handsets, U.S. consumers have reaped the benefit of competition among carriers and technologies, resulting in lower prices, more usage, more varied voice network choices, and more robust data services.

Mark Lowenstein Biography

Mark Lowenstein is a leading wireless industry analyst, commentator, and consultant. Most recently, Lowenstein was an executive at Verizon Wireless, where as Vice President of Strategy he led the company's efforts in pricing, market segmentation, and business planning.

Prior to his role at Verizon Wireless, Lowenstein was Managing Director of the consulting firm, Mobile Ecosystem, where he advised companies and C-level executives across the landscape of wireless communications on market, product, and industry strategy. Prior to founding Mobile Ecosystem, Lowenstein spent ten years at the Yankee Group, where he founded and led the company's wireless practices on a global basis.

Lowenstein has appeared as an expert witness on the wireless industry in several proceedings. He provided a statement as an expert on behalf of the major wireless carriers before the California Public Utilities Commission in its "Consumer Bill of Rights" proceeding. He has provided similar statements as an expert on the wireless industry before the Hawaii Public Utilities Commission and the Federal Communications Commission.

During the course of his fifteen year career as an industry consultant, Lowenstein has advised nearly every major player in the wireless communications industry. He has also had retainer relationships with top venture capital and private equity firms. Lowenstein was selected by Boston Mayor Thomas Menino to be part of an executive group to determine wireless strategy for the City of Boston. As one of the wireless industry's leading analysts, Lowenstein is a sought-after speaker, delivering keynote addresses at major industry and private corporate events.

Over the past 15 years, Lowenstein has published periodic newsletters and columns on the wireless industry, including the monthly "Lowenstein's Lens on Wireless," while running Mobile Ecosystem, and a monthly column for Wireless Week. Lowenstein has been an invited speaker numerous times across the United States at meetings and events hosted by industry trade associations, major wireless carriers, telecommunications infrastructure providers, accounting firms, wireless application developers, wireless CPE manufacturers, Wall Street equity research firms, and major U.S. banks. Lowenstein founded the Boston Wireless Braintrust, a group of twenty CEOs and wireless industry thought leaders who meet quarterly, on a proprietary basis, to discuss key industry issues, opportunities and challenges.

Lowenstein currently resides in Maplewood, New Jersey with his wife and two children.